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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/518,194	08/21/97	NATHASINGH	D 30-4358(4710)

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EXAMINER

NGUYEN, T

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/918,194

Applicant(s)
Nathasingh et al.

Examiner
Tuyen T. Nguyen

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2832



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 13, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 7, 14-18, 20-25, and 28-39 is/are pending in the application.
- 4a) Of the above, claim(s) 37-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 7, 14-18, 20-25, and 28-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

Continued Prosecution Application

1. The request filed on 4/25/01 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/918,194 is acceptable and a CPA has been established. An action on the CPA follows.

Election/Restriction

2. Claims 37-39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected method, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 16.
3. Applicant's election with traverse of the method claims of claims 37-39 in Paper No. 17 is acknowledged. The traversal is on the ground(s) that the search for the apparatus would overlap that of the method. This is not found persuasive because the apparatus and method claims are classify in separate, distinct areas.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1, 4, 7, 14-18, 20-25 and 28-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, applicant should clarify the specific annealing of the core segment. It is unclear whether it is intended that the annealing takes place prior to assembly. Applicant should clarify what is intended by “individually annealed.” In line 3, applicant should clarify what is intended by a “setp-lap joint portion.” Claims 4, 6, 7, 14-18 and 20-25 inherit the defects of the parent claim.

Regarding claim 28, should clarify the specific annealing of the core segment. is unclear whether it is intended that the annealing takes place prior to assembly. In line 1, the phrase “adapted to” is unclear because it has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138, 33 CCPA 879 (1946). MPEP 706.03(c). In lines 1-2, there is no antecedent basis for “at least one further mating transformer core segment.” In line 2, applicant should clarify which transformer core is intended. In lines 2-3, there is no antecedent basis for “said transformer core segment.” Claims 29-36 inherit the defects of the parent claim.

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Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 28, as best understood in view of the rejections under 35 U.S.C. second paragraph, are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al. [US 4,364,020].

Lin et al. discloses a transformer core [see figure 1] comprising:

- a plurality of amorphous metal steel strip *annealed core segments* [25] each of which forming a packet arranged in a step-lap joint.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 4, 7, 14-18, 21-24, 28-32 and 34-36, as best understood in view of the rejections under 35 U.S.C. second paragraph, are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen [US 3,538,474] in view of Lin et al. .

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Regarding claims 1 and 28, Olsen discloses a transformer core comprising a plurality of segments of metal strips, said strip each having ends that are *overlap and underlap contact forming an interlock* comprising at least one packet of said strips having edges. [see figure 4]

Regarding claim 4, Olsen discloses each packet comprises a plurality groups of cut amorphous metal strips arranged in a step-lap joint [see figures 4-6] and having a C segment construction.

Regarding claim 7, Olsen discloses the edges of each of said segments are coated with a bonding material that protects said edges and provides said segment with increased mechanical strength.

Regarding claim 14, Olsen discloses a transformer core comprising two C segments.

Olsen discloses the instant claimed invention except for the metal strips being formed of an amorphous annealed metal.

Lin et al. discloses [see above].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use amorphous annealed metal for the strips of Olsen, as taught by Lin et al., for the purpose of providing a homogeneous material for the strips of the transformer-core.

Regarding claims 15-18 and 29-32, Olsen, as modified, discloses the instant claimed invention except for number of C, I, and straight segments.

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It would have been an obvious matter of design choice to modify the transformer core of Olsen as modified into form of shell-type or three leg core for three phase transformer by forming different C, I, and straight segments together.

Regarding claims 21-24 and 34-36, Olsen, as modified, discloses the instant claimed invention except for the core is not housed in an oil filled or dry-type transformer, a distribution transformer, a power transformer, and used in a voltage conversion apparatus.

It would have been an obvious matter of design choice to house the core of Olsen as modified in an oil filled or dry-type transformer, a distribution transformer, a power transformer, and used in a voltage conversion apparatus, since applicant has not disclosed that housing the core in an oil filled or dry-type transformer, a distribution transformer, a power transformer, and used in a voltage conversion apparatus solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the core of Olsen being use as an electric induction apparatus.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen in view of Lin et al., as applied to claim 1 above and further in view of Granfield [US 2,465,798].

Olsen, as modified, discloses the instant claimed invention except for the strips have varying widths arranged to provide a cruciform shape cross section. Grandfield teaches utilizing strips having varying widths arranged to provide a cruciform shape cross section. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the strips having varying widths arranged to provide a cruciform shape cross section, as taught by Grandfield,

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in Olsen's unit, as modified, for the purpose of providing the advantage of assembling the round coil and maximizing the coil space fill factor.

11. Claims 25 and 33, are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen in view of Lin et al., as applied to claim 1 above, and further in view of Ames et al. [US 4,450,206].

Olsen as modified discloses the instant claimed invention except for the strips having a composition defined by the formula $M_{70-80}Y_{5-20}Z_{0-20}$. Ames et al. teaches utilizing the amorphous metal strip having a composition defined by the formula MYZ where the atom percent is in the range of the claimed invention (see TABLE I). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the amorphous metal strip of Ames into Olsen's unit as modified so the core segments can be suitable for use in voltage conversion and energy storage applications

Response to Arguments

12. Applicant's arguments with respect to claims 1, 4, 7, 14-18, 20-25 and 28-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tuyen T. Nguyen whose telephone number is (703) 308-0821.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Gellner, can be reached at (703)308-1721. The fax number for this Group is (703)308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)308-0956.

TTN *TTN*

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October 22, 2001


LINCOLN DONOVAN
PRIMARY EXAMINER
GROUP 2100